

## 03060106-100

### (Upper Three Runs)

#### General Description

Watershed 03060106-100 is located in Aiken and Barnwell Counties and consists primarily of the *Upper Three Runs* and its tributaries. The watershed occupies 157,409 acres of the Sand Hills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Fuquay-Troup-Ailey-Vaucluse series. The erodibility of the soil (K) averages 0.13, and the slope of the terrain averages 6%, with a range of 0-25%. Land use/land cover in the watershed includes: 57.4% forested land, 16.8% barren land, 12.9% agricultural land, 9.9% forested wetland, 2.7% urban land, 0.2% water, and 0.1% nonforested wetland.

Upper Three Runs accepts drainage from Tarrants Millpond, Jackson Branch, Cedar Creek (Chapman Pond), Boggy Gut (Beulah Fork, Dicks Pond, Cooks Pond), Johnson Fork, Tinker Creek (Riley Pond, Reedy Branch, Mill Creek, McQueen Branch), Crouch Branch, Tims Branch, and Island Creek (Brent Lake). There are a total of 223.7 stream miles and 198.3 acres of lake waters, all classified FW.

#### Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
SV-680	BIO	FW	UPPER THREE RUNS AT S-02-113
SV-723	BIO	FW	CEDAR CREEK AT S-02-79
SV-324	P	FW	TIMS BRANCH AT SRS ROAD C
SV-325	P	FW	UPPER THREE RUNS AT SRS ROAD A

*Upper Three Runs* – There are two monitoring sites along Upper Three Runs. At the upstream site (*SV-680*), aquatic life uses are fully supported based on macroinvertebrate community data. At the downstream site (*SV-325*), aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH. Although pH excursions occurred, they are typical of values seen in blackwater systems and are considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. In sediments, P,P'DDE, a metabolite of DDT, was detected in the 1998 sediment sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are fully supported at this site.

*Cedar Creek (SV-723)* - Aquatic life uses are fully supported based on macroinvertebrate community data.

*Tims Branch (SV-324)* - Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH. Although pH excursions occurred, they are typical of values seen in blackwater systems and are considered natural, not standards violations. There is a significant decreasing trend in pH. Significant decreasing trends in total phosphorus and total nitrogen concentrations suggest improving

conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions.

## NPDES Program

### *Active NPDES Facilities*

<i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD)</i>	<i>NPDES# TYPE COMMENT</i>
TIMS BRANCH TRIBUTARY USDOE WESTINGHOUSE SRS PIPE #: A11 FLOW: 0.851 PIPE #: A01 FLOW: 0.572 PIPE #: M05 FLOW: 0.878	SC0000175 MAJOR INDUSTRIAL
UPPER THREE RUNS USDOE WESTINGHOUSE SRS PIPE #: F05 FLOW: 0.06 PIPE #: F02 FLOW: 0.145 PIPE #: H16 FLOW: 0.105 PIPE #: F01 FLOW: 0.036	SC0000175 MAJOR INDUSTRIAL
CROUCH BRANCH TRIBUTARY USDOE WESTINGHOUSE SRS PIPE #: H02 FLOW: 0.12 PIPE #: H04 FLOW: 0.01	SC0000175 MAJOR INDUSTRIAL
MCQUEEN BRANCH TRIBUTARY USDOE WESTINGHOUSE SRS PIPE #: H07 FLOW: 0.05	SC0000175 MAJOR INDUSTRIAL
MCQUEEN BRANCH USDOE WESTINGHOUSE SRS PIPE #: S04 FLOW: 0.036	SC0000175 MAJOR INDUSTRIAL

## Nonpoint Source Management Program

### *Land Disposal Activities*

#### **Landfill Activities**

<i>SOLID WASTE LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
TOWN OF NEW ELLENTON DUMP DOMESTIC	----- INACTIVE
TOWN OF JACKSON DUMP DOMESTIC	----- INACTIVE
THREE RIVERS TIRE PROCESSING TIRE PROCESSING	024202-5201 ACTIVE
THREE RIVERS SUBTITLE D LANDFILL DOMESTIC	024202-1101 ACTIVE

BURMA ROAD INDUSTRIAL	025800-1601 INACTIVE
SRS BURN ROAD C/C C/C	025500-1201 (CWP-030) INACTIVE
SRS D-F STEAMLINE INDUSTRIAL	025500-1601 INACTIVE
SRS 200-F SITE 1, 4 INDUSTRIAL	025500-1602, IWP-219 INACTIVE
SRS Z-AREA SALTSTONE IND. SITE INDUSTRIAL	025500-1603, IWP-217 ACTIVE
SRS DOE DOMESTIC	025500-1102, DWP-087 INACTIVE

### **Land Application Sites**

***LAND APPLICATION SYSTEM  
FACILITY NAME***

***ND#  
TYPE***

SPRAYFIELD  
TOWN OF NEW ELLENTON

ND0068454  
DOMESTIC

### **Growth Potential**

There is a moderate potential for growth in this watershed, which contains portions of the City of Aiken, the Towns of New Ellenton and Jackson, and the Savannah River Site. The City of Aiken is experiencing growth in a southwesterly direction toward the Savannah River Site. Growth is predominately residential; numerous subdivisions are being developed. Commercial centers are also being constructed in conjunction with the population growth and residential development. Aiken has the permit for expansion of Aiken County's Horse Creek Treatment Plant to handle potential growth.

S.C. Hwys 19 (towards New Ellenton and SRS) and 302 (towards Augusta and SRS) are the major commercial corridors serving the residential communities. Growth is expected to continue south and southwest instead of in previously established areas. Industrial growth is expected to occur along S.C. 19 to New Ellenton and west towards North Augusta, along the Horse Creek drainage. The Savannah River Site covers the lower half of the watershed. The Savannah River Site employs 25,000 people from nearby counties and is responsible for the overall growth in proximity to the site.